E07-07-0728 Lambert

Supplementary figure

Figure **S1:** The *cds1Δ mus81Δ* double mutant does not complete replication after HU treatment

(A) FACS analysis of indicated strains during HU arrest (12 mM) and following release. AS: Asynchronous cells.

(B) Size determination of HU-induced DNA fragments detected at 2 hours after release from HU (12mM) using PFGE. Molecular weight (λ) corresponds to the Lambda ladder (BIO-RAD) that starts at 48.5 kb and increases by 48.5kb in each successive band. Fragments migrating around 50kb in all strains likely correspond to mtDNA.

(C) Serial dilution of exponential growing cells from indicated strains exposed to HU or not. *rad22Δ* + *supp* strain corresponds to the original deletion strain containing the suppressor *fbh1* (Ostermann *et al.*, 1993).

Figure **S2:** HU-induced DNA breaks formation requires Rqh1

PFGE analysis of indicated strains during HU arrest (12mM for 6 hours) and following release from arrest (R). Top panel: EtBr staining. Bottom panel: *ars2-1* probe.

Figure **S3**: Interplay between Mus81 activity and DNA damage checkpoint

(A) Top panels: septation index curves of cells synchronized in G2 by lactose gradient and released into the cell cycle with (12 mM) or without HU. Samples were taken at indicated times and analyzed by DAPI and Calcofluor staining. Two independent experiments are shown. Bottom panels: corresponding percentage of abnormal mitosis (abnormal DNA segregation during mitosis, with or without septum).

(B) Kinetic of Chk1-HA phosphorylation of *cdc25-22 cds1Δ* and *cdc25-22 cds1Δ mus81Δ* in G2 at 36°C for 4 hours and released at 25°C with (12mM) or without HU. Samples were taken at the indicated times, proteins were extracted and used to visualize Chk1-HA phosphorylation by Western-blot.

Fig S1: ***Froget et al.***

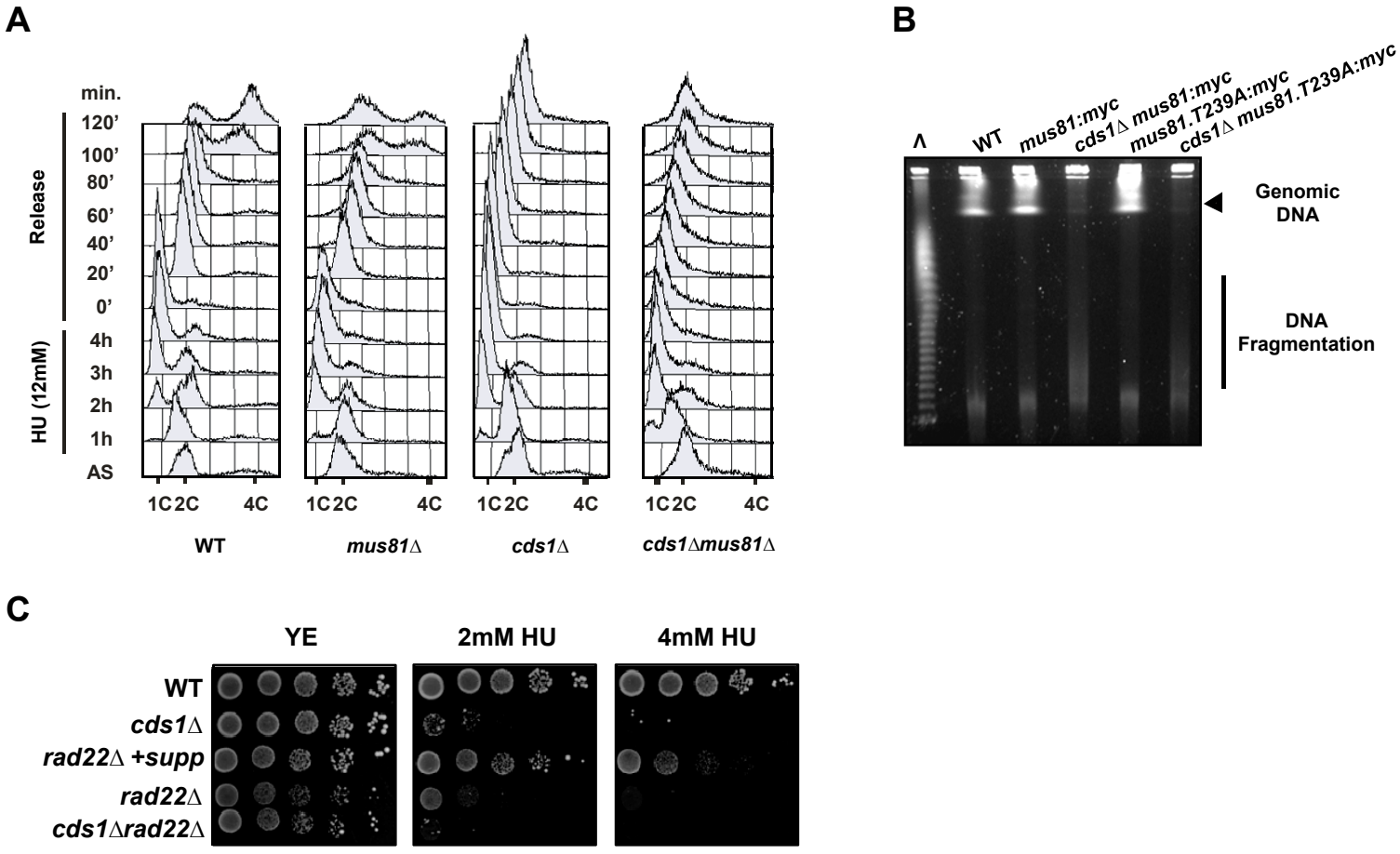

Fig S2: ***Froget et al.***

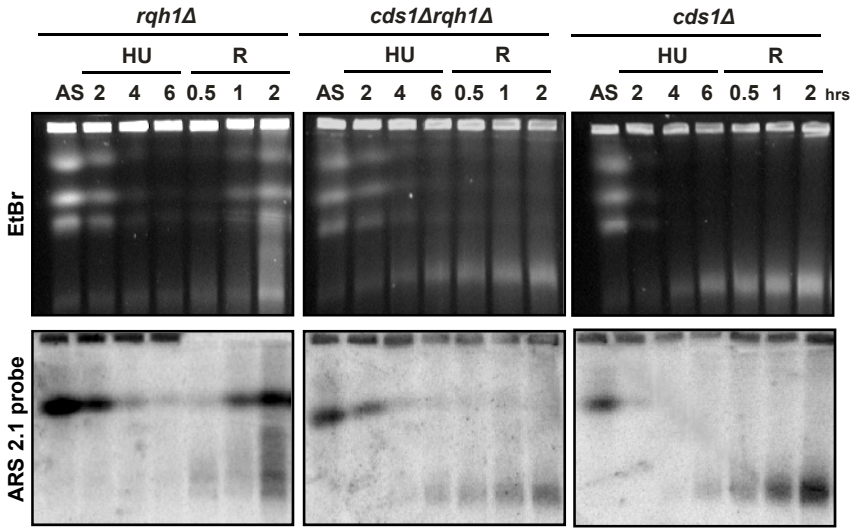

Fig S3: ***Froget et al.***